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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/266,675	03/11/1999	RANDY S. KIMMERLY	777.278US1	6126

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[REDACTED] EXAMINER

LY, ANH

ART UNIT	PAPER NUMBER
2172	N 13

DATE MAILED: 03/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/266,675	KIMMERLY, RANDY S.	
	Examiner	Art Unit	
	Anh Ly	2172	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 28 January 2003.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-24 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-24 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 29 March 2002 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____	6) <input type="checkbox"/> Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed on 01/28/2003 with respect to claims 1-24 have been considered but are moot in view of the new ground(s) of rejection.
2. Claims 1-24 are pending in this application.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-3, 5-6, 10-14 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No 5,187,786 issued to Densmore et al. (herein Densmore) in view of US Patent No. 6,324,688 issued to Brown et al. (herein Brown).

With respect to claim 1, Densmore discloses generating a cache of information relating to the classes (abstract, col. 2, lines 46-67 and col. 3, lines 1-13); requesting a search of the class (search path: col. 9, lines 6-9 and lines 15-32).

Densmore does not explicitly indicate, "searching the cache to satisfy the requested search."

However, Brown discloses Class loader for finding class stored in the memory as requested by searching (col. 8, lines 45-50 and col. 9, lines 4-15).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to employ the teachings of Densmore with the teachings of Brown so as to obtain a method of locating classes in a path. This combination would provide the method having a class loader to finding the class in the path stored in the memory (Brown - col. 8, lines 45-50) in order to optimize the runtime for looking the class in the path or directory (Brown - col. 2, lines 60-67) in the Java class file environment.

Claim 2 is essentially the same as claim 1 except that it is directed to a computer readable medium rather than a method ('786 of abstract, col. 2, lines 46-67 and col. 3, lines 1-13; and search path: col. 9, lines 6-9 and lines 15-32; and '688 of col. 8, lines 45-50 and col. 9, lines 4-15), and is rejected for the same reason as applied to the claim 1 hereinabove.

With respect to claim 3, Densmore wherein the class path comprises multiple elements, each element having multiple classes stored therein (class hierarchy of object: comprising root class, a plurality of classes: see abstract).

With respect to claim 5, Densmore discloses generating a search request for desired classes within the multi-element class path; and independently satisfying the request in association with each element in the class path (abstract, col. 2, lines 46-67 and col. 3, lines 1-13; and search path: col. 9, lines 6-9 and lines 15-32).

Densmore does not explicitly indicate, "a cache of information sufficient to satisfy the request for that element."

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However, Densmore discloses Class loader for finding class stored in the memory as requested by searching (col. 8, lines 45-50 and col. 9, lines 4-15).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to employ the teachings of Densmore with the teachings of Brown so as to obtain a method of locating classes in a path. This combination would provide the method having a class loader to finding the class in the path stored in the memory (Brown - col. 8, lines 45-50) in order to optimize the runtime for looking the class in the path or directory (Brown - col. 2, lines 60-67) in the Java class file environment.

Claim 6 is essentially the same as claim 5 except that it is directed to a computer readable medium rather than a method ('786 of abstract, col. 2, lines 46-67 and col. 3, lines 1-13; and search path: col. 9, lines 6-9 and lines 15-32; and '688 of col. 8, lines 45-50 and col. 9, lines 4-15), and is rejected for the same reason as applied to the claim 5 hereinabove.

With respect to claim 10, Densmore discloses determining which elements are viable for caching; and initiating creation of caches for those elements, which are viable (see abstract, see figs: 1,3 and 4, col. 4, lines 60-67 and col. 5, lines 1-42).

Densmore does not explicitly indicate, "parsing the class path into names of elements."

However, Brown discloses Parser for the class loader (parser with the class loader: col. 7, lines 28-32 and col. 8, lines 25-31).

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Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to employ the teachings of Densmore with the teachings of Brown so as to obtain a method of locating classes in a path. This combination would provide the method having a class loader to finding the class in the path stored in the memory (Brown - col. 8, lines 45-50) in order to optimize the runtime for looking the class in the path or directory (Brown - col. 2, lines 60-67) in the Java class file environment.

With respect to claims 11-14, Densmore discloses a method of creating caches as discussed in claim 10.

Densmore does not explicitly indicate, "wherein the viability of an element for caching is dependent on the ease of tracking which elements have had changes in them; wherein the viability of an element for caching is determined based on it being a predetermined type; checking a registry to see if the element already has a cache associated with it; and determining if an existing cache is up to date."

However, Brown discloses tracking of elements; the type of the element and an existing cache is up to date (col. 5, lines 5-37; col. 6, lines 15-25; col. 7, lines 15-44; col. 8, lines 43-61 and col. 9, lines 4-15 and lines 22-37).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to employ the teachings of Densmore with the teachings of Brown so as to obtain a method of locating classes in a path. This combination would provide the method having a class loader to finding the class in the path stored in the memory (Brown - col. 8, lines 45-50) in order to optimize the runtime

for looking the class in the path or directory (Brown - col. 2, lines 60-67) in the Java class file environment.

Claim 23 is essentially the same as claim 5 except that it is directed to a computer readable medium rather than a method ('786 of abstract, col. 2, lines 46-67 and col. 3, lines 1-13; and search path: col. 9, lines 6-9 and lines 15-32; and '688 of col. 8, lines 45-50 and col. 9, lines 4-15), and is rejected for the same reason as applied to the claim 5 hereinabove.

5. Claims 4, 7-9 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No 5,187,786 issued to Densmore et al. (herein Densmore) in view of US Patent No. 6,324,688 issued to Brown et al. (herein Brown) and further in view of US Patent No. 5,937,411 issued to Becker.

With respect to claim 4, Densmore in view of Brown discloses a method of locating classes as discussed in claim 1.

Densmore in view of Brown does not explicitly indicate, "a zip file."

However, Becker discloses a zip file as claimed (col. 3, lines 18-38).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to employ the teachings of Densmore in view of Brown with the teachings of Becker so as to obtain a method of locating classes in a path. This combination would provide the method having a class loader to finding the class in the path stored in the memory (Brown - col. 8, lines 45-50) in order to optimize the

runtime for looking the class in the path or directory (Brown - col. 2, lines 60-67) in the Java class file environment.

With respect to claims 7-9, Densmore in view of Brown discloses a method of locating classes as discussed in claim 5.

Densmore in view of Brown does not explicitly indicate, "a zip file and Java classes and Java package Manager."

However, Becker discloses a zip file as claimed (col. 3, lines 18-38 and col. 2, lines 8-30) and Java beans packaging in the JAR file (col. 3, lines 17-38).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to employ the teachings of Densmore in view of Brown with the teachings of Becker so as to obtain a method of locating classes in a path. This combination would provide the method having a class loader to finding the class in the path stored in the memory (Brown - col. 8, lines 45-50) in order to optimize the runtime for looking the class in the path or directory (Brown - col. 2, lines 60-67) in the Java class file environment.

With respect to claim 24, Densmore in view of Brown discloses a method of locating classes as discussed in claim 23.

Densmore in view of Brown does not explicitly indicate, "checking a data/time stamp on the element."

However, Becker discloses the checking the JAR file (col. 4, lines 28-42).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to employ the teachings of Densmore in view of Brown

with the teachings of Becker so as to obtain a method of locating classes in a path. This combination would provide the method having a class loader to finding the class in the path stored in the memory (Brown - col. 8, lines 45-50) in order to optimize the runtime for looking the class in the path or directory (Brown - col. 2, lines 60-67) in the Java class file environment.

6. Claims 15, 17-18 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No 5,187,786 issued to Densmore et al. (herein Densmore) in view of US Patent No. 6,085,030 issued to Whitehead et al. (herein Whitehead).

With respect to claim 15, Densmore discloses means for receiving request to search a multi-element class path for classes and means for transferring such request (abstract, col. 2, lines 46-67 and col. 3, lines 1-13).

Densmore does not explicitly indicate, "a wrapper associated with each element to invoke element specific search methods."

However, Whitehead discloses wrapper for object in CORBA environment that invokes the object (col. 3, lines 29-35, col. 5, lines 31-44 and col. 12, lines 44-60).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to employ the teachings of Densmore with the teachings of Brown so as to obtain a method of locating classes in a path. This combination would provide the method having a class loader to finding the class in the

path stored in the memory (Brown - col. 8, lines 45-50) in order to optimize the runtime for looking the class in the path or directory (Brown - col. 2, lines 60-67) in the Java class file environment.

With respect to claim 17, Densmore discloses means for parsing the multi-element class path into names of elements; means for determining whether each element is a viable cache candidate; means for creating a cache for such viable (abstract, col. 2, lines 46-67 and col. 3, lines 1-13; also see col. 5, lines 1-42).

Densmore does not explicitly indicate, "and means for creating indirection wrappers for each element to map class searches to each element for independent handling."

However, Whitehead discloses wrapper for object in CORBA environment that invokes the object (col. 3, lines 29-35, col. 5, lines 31-44 and col. 12, lines 44-60).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to employ the teachings of Densmore with the teachings of Brown so as to obtain a method of locating classes in a path. This combination would provide the method having a class loader to finding the class in the path stored in the memory (Brown - col. 8, lines 45-50) in order to optimize the runtime for looking the class in the path or directory (Brown - col. 2, lines 60-67) in the Java class file environment.

With respect to claim 18, Densmore discloses wherein the cache for each viable candidate comprises a name of the class (col. 5, lines 9-15 and lines 49-60).

With respect to claim 22, Densmore discloses a class path manager that receives requests for identification or enumeration of classes of classes in the class path; a cache for a cache viable element of the class path and receives such request from the class path manager and that provides a transparent level of indirection to services that are specific to such cache viable element (abstract, col. 2, lines 46-67 and col. 3, lines 1-13; also see col. 5, lines 1-42; col. 7, lines 11-18 and col. 8, lines 6-15).

Densmore does not explicitly indicate, "a wrapper for such cache viable element."

However, Whitehead discloses wrapper for object in CORBA environment that invokes the object (col. 3, lines 29-35, col. 5, lines 31-44 and col. 12, lines 44-60).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to employ the teachings of Densmore with the teachings of Brown so as to obtain a method of locating classes in a path. This combination would provide the method having a class loader to finding the class in the path stored in the memory (Brown - col. 8, lines 45-50) in order to optimize the runtime for looking the class in the path or directory (Brown - col. 2, lines 60-67) in the Java class file environment.

7. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No 5,187,786 issued to Densmore et al. (herein Densmore) in view of US Patent No. 6,085,030 issued to Whitehead et al. (herein Whitehead) and further in view of 6,324,688 issued to Brown et al. (herein Brown).

With respect to claim 16, Densmore in view of Whitehead discloses a class path manager as discussed in claim 15.

Densmore in view of Whitehead does not explicitly indicate, "wherein at least one such element specific search method comprises searching a cache associated with such element."

However, Brown discloses Class loader for finding class stored in the memory as requested by searching (col. 8, lines 45-50 and col. 9, lines 4-15).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to employ the teachings of Densmore in view of Whitehead with the teachings of Brown so as to obtain a method of locating classes in a path. This combination would provide the method having a class loader to finding the class in the path stored in the memory (Brown - col. 8, lines 45-50) in order to optimize the runtime for looking the class in the path or directory (Brown - col. 2, lines 60-67) in the Java class file environment.

8. Claims 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No 5,187,786 issued to Densmore et al. (herein Densmore) in view of US Patent No. 6,085,030 issued to Whitehead et al. (herein Whitehead) and further in view of US Patent No. 5,937,411 issued to Becker.

With respect to claim 19, Densmore in view of Whitehead discloses a class path manager as discussed in claim 17.

Densmore in view of Whitehead does not explicitly indicate, "wherein the elements are selected from the group consisting of directories, Zip files and Java Package Manager."

However, Becker discloses a zip file as claimed (col. 3, lines 18-38 and col. 2, lines 8-30) and Java beans packaging in the JAR file (col. 3, lines 17-38).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to employ the teachings of Densmore in view of Brown with the teachings of Becker so as to obtain a method of locating classes in a path. This combination would provide the method having a class loader to finding the class in the path stored in the memory (Brown - col. 8, lines 45-50) in order to optimize the runtime for looking the class in the path or directory (Brown - col. 2, lines 60-67) in the Java class file environment.

With respect to claim 20-21, Densmore discloses wherein the directories are not cached and wherein wherein the viability of an element for caching is dependent on the ease of tracking which elements have had changes in them (see abstract, see figs. 1, 3-4; col. 2, lines 46-65 and col. 5, lines 17-42).

Contact Information

9. Any inquiry concerning this communication should be directed to Anh Ly whose telephone number is (703) 306-4527 via E-Mail: **ANH.LY@USPTO.GOV**. The examiner can be reached on Monday - Friday from 8:00 AM to 4:00 PM.

If attempts to reach the examiner are unsuccessful, see the examiner's supervisor, Kim Vu, can be reached on (703) 305-4393.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to: (703) 746-7238 (after Final Communication and intended for entry)

or: (703) 746-7239 (for formal communications intended for entry)

or: (703) 746-7240 (for informal or draft communications, please

label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Fourth Floor (receptionist).

Inquiries of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.



HOSAIN T. ALAM
PRIMARY EXAMINER


Mar. 19th, 2003.